Name: _____ Class: _____ Date: _____

Division of Fractions

Use a separate piece of paper to complete the problems. Begin by copying the original problem, then choose a method to divide. Show all work.

The next two examples use common denominators to divide by a fraction. Express both fractions with a common denominator, then divide the first numerator by the second.

Example 3

$\frac{4}{5} \div \frac{2}{3} \Rightarrow \frac{12}{15} \div \frac{10}{15} \Rightarrow \frac{12}{10} \Rightarrow \frac{6}{5}$ or $1\frac{1}{5}$

Example 4

$1\frac{1}{3} \div \frac{1}{6} \Rightarrow \frac{4}{3} \div \frac{1}{6} \Rightarrow \frac{8}{6} \div \frac{1}{6} \Rightarrow \frac{8}{1}$ or 8

One more way to divide fractions is to use the Giant One from previous work with fractions to create a "Super Giant One." To use a Super Giant One, write the division problem in fraction form, with a fraction in both the numerator and the denominator. Use the reciprocal of the denominator for the numerator and the denominator in the Super Giant One, multiply the fractions as usual, and simplify the resulting fraction when possible.

Example 6

$$\frac{\frac{3}{4}}{\frac{1}{6}} \cdot \boxed{\frac{\frac{6}{1}}{\frac{6}{1}}} = \frac{\frac{18}{4}}{1} = \frac{9}{2} = 4\frac{1}{2}$$

Example 8

$$\frac{2}{3} \div \frac{3}{5} \Rightarrow \frac{10}{15} \div \frac{9}{15} \Rightarrow \frac{10}{9}$$

Compared to:

$$\frac{\frac{2}{3}}{\frac{3}{5}} \cdot \boxed{\frac{\frac{5}{3}}{\frac{5}{3}}} = \frac{\frac{10}{9}}{1} = \frac{10}{9} = 1\frac{1}{9}$$

Complete the division problems below. Use any method.

1. $\frac{3}{7} \div \frac{1}{8}$
2. $1\frac{3}{7} \div \frac{1}{2}$
3. $\frac{4}{7} \div \frac{1}{3}$
4. $1\frac{4}{7} \div \frac{1}{3}$
5. $\frac{6}{7} \div \frac{5}{8}$
6. $\frac{3}{10} \div \frac{5}{7}$
7. $2\frac{1}{3} \div \frac{5}{8}$
8. $7 \div \frac{1}{3}$
9. $1\frac{1}{3} \div \frac{2}{5}$
10. $2\frac{2}{3} \div \frac{3}{4}$
11. $3\frac{1}{3} \div \frac{5}{6}$
12. $1\frac{1}{2} \div \frac{1}{2}$
13. $\frac{5}{8} \div 1\frac{1}{4}$
14. $10\frac{1}{3} \div \frac{1}{6}$
15. $\frac{3}{5} \div 6$